



**Air Quality  
TIER II OPERATING PERMIT  
and  
PERMIT TO CONSTRUCT**

**State of Idaho  
Department of Environmental Quality**

**PERMIT No.:** T2-050413

**FACILITY ID No.:** 063-00003

**AQCR:** 63

**CLASS:** B

**SIC:** 2023

**ZONE:** 11

**UTM COORDINATE (km):** 731.2, 4769.8

**1. PERMITTEE**

Glanbia Foods, Inc., Richfield facility

**2. PROJECT**

Initial Facility-wide Tier II Operating Permit and Permit to Construct

**3. MAILING ADDRESS**

1728 South 2300 East

**CITY**

Gooding

**STATE**

Idaho

**ZIP**

83330

**4. FACILITY CONTACT**

Todd Hughes

**TITLE**

Environmental Manager

**TELEPHONE**

208-934-9835

**5. RESPONSIBLE OFFICIAL**

Barney Kreuger

**TITLE**

VP of Technical Services

**TELEPHONE**

208-934-8195

**6. EXACT PLANT LOCATION**

1572 East Hwy 26; the west end of Richfield on the north side of Hwy 93

**COUNTY**

Lincoln

**7. GENERAL NATURE OF BUSINESS & KINDS OF PRODUCTS**

Whey processing facility

**8. PERMIT AUTHORITY**

This permit to construct and Tier II operating permit is issued according to the *Rules for the Control of Air Pollution in Idaho*, IDAPA 58.01.01.200-228 and IDAPA 58.01.01.400-470, respectively. This permit pertains only to emissions of air contaminants, which are regulated by the state of Idaho and to the sources specifically allowed to be operated by this permit.

Only the terms and conditions pertaining to Tier II operating permit requirements are subject to the expiration date of this permit.

The permit to construct conditions in this permit will expire if construction has not begun within two years of its issue date or if construction is suspended for one year.

This permit has been granted on the basis of design information presented in the application and the Idaho Department of Environmental Quality's (DEQ) technical analysis of the supplied information. Changes in design or equipment that result in any change in the nature or amount of emissions may be considered a modification. Modifications are subject to DEQ review in accordance with IDAPA 58.01.01.200 of the *Rules for the Control of Air Pollution in Idaho*.

TONI HARDESTY, DIRECTOR

DEPARTMENT OF ENVIRONMENTAL QUALITY

**DATE REVISED/MODIFIED:**

**DATE ISSUED/RENEWED:**

**DATE EXPIRES:**

Proposed Public Comment

## Table Of Contents

ACRONYMS, UNITS, AND CHEMICAL NOMENCLATURES.....	3
1. TIER II OPERATING PERMIT AND PERMIT TO CONSTRUCT SCOPE.....	4
2. FACILITY-WIDE CONDITIONS.....	7
3. CLEAVER BROOKS AND KEWANEE BOILERS.....	11
4. WHEY DRYERS.....	13
5. CONVEYOR BAGHOUSES.....	15
6. SUMMARY OF EMISSION RATE LIMITS.....	17
7. TIER II PERMIT GENERAL PROVISIONS.....	18

## Acronyms, Units, and Chemical Nomenclatures

acfm	actual cubic feet per minute
AQCR	Air Quality Control Region
Btu	British thermal unit
CFR	Code of Federal Regulations
CO	carbon monoxide
DEQ	Department of Environmental Quality
dscf	dry standard cubic feet
EPA	U.S. Environmental Protection Agency
gr	grain (1 lb = 7,000 grains)
IDAPA	a numbering designation for all administrative rules in Idaho promulgated in accordance with the Idaho Administrative Procedures Act
km	kilometer
lb/hr	pound per hour
m	meter(s)
MMBtu	million British thermal units
NO <sub>x</sub>	nitrogen oxides
NSPS	New Source Performance Standards
PM	particulate matter
PM <sub>10</sub>	particulate matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers
PTC	permit to construct
PTE	potential to emit
scf	standard cubic feet
SIC	Standard Industrial Classification
SO <sub>2</sub>	sulfur dioxide
T/yr	tons per year
UTM	Universal Transverse Mercator
VOC	volatile organic compound

**AIR QUALITY TIER II OPERATING PERMIT AND PERMIT TO CONSTRUCT NUMBER: T2-050413**

<b>Permittee:</b>	Glanbia Foods, Inc.	<b>Facility ID No.</b> 063-00003	<b>Date Revised/Modified:</b>	
<b>Location:</b>	Richfield, Idaho		<b>Date Issued/Renewed:</b>	Proposed Public Comment
			<b>Date Expires:</b>	

## 1. TIER II OPERATING PERMIT AND PERMIT TO CONSTRUCT SCOPE

### *Purpose*

- 1.1 The purpose of this initial Tier II Operating Permit and Permit to Construct (hereafter referred to as “facility-wide permit”) is to establish facility wide requirements to protect ambient air quality standards.
- 1.2 This facility-wide permit incorporates and replaces Permit to Construct No. 063-00003, issued August 27, 1992, revised June 6, 1994, June 9, 1995, and May 7, 2000, the terms and conditions of which shall no longer apply.
- 1.3 The following administrative changes have also been made as part of this permitting action. Emissions do not increase as a result.
  - Removes fuel oil as an allowable boiler fuel at the facility.
  - Updates emission estimates based on more recent federal estimates of propane emissions.
  - Replaces previous emission limits with limits based on updated propane emissions data.
  - Removes emission limits for pollutants which have low emission rates due to inherent properties of propane fuel.
- 1.4 The following is a chronological history of PTC No. 063-00003.
  - August 27, 1992      The Kewanee fuel oil and propane fired boiler replaces a fuel oil boiler.
  - June 6, 1994          Boiler particulate matter test requirements are removed.
  - June 9, 1995          The Cleaver Brooks fuel oil and propane fired boiler replaces two coal fired boilers.
  - May 7, 2000          The corporation name changed from Avonmore West, Inc., to Glanbia Foods, Inc.

### *Regulated Sources*

- 1.5 Table 1.1 lists all sources of regulated emissions in this permit.

**Table 1.1 SUMMARY OF REGULATED SOURCES**

<b>Permit Section</b>	<b>Source Description</b>	<b>Emissions Controls</b>
3	<u>Boiler</u> Cleaver Brooks model CB-200-600-160 25.13 MMBtu/hr Burner type: horizontal Stack gas flow rate: 8,006 acfm @ 370 °F Fuel: propane	None
3	<u>Boiler</u> Kewanee Classic III model H3S-600G02 25.13 MMBtu/hr Burner type: horizontal Stack gas flow rate: 8,006 acfm @ 370 °F Fuel: propane	None

**AIR QUALITY TIER II OPERATING PERMIT AND PERMIT TO CONSTRUCT NUMBER: T2-050413**

<b>Permittee:</b>	Glanbia Foods, Inc.	<b>Facility ID No.</b> 063-00003	<b>Date Revised/Modified:</b>	
<b>Location:</b>	Richfield, Idaho		<b>Date Issued/Renewed:</b>	Proposed Public Comment
			<b>Date Expires:</b>	

Permit Section	Source Description	Emissions Controls
4	<p><u>Baghouse Dryer Units</u></p> <p>Blau Knox baghouse dryer Uses boiler steam for drying 300 lb/hr maximum dry solids production Baghouse exhaust rate: 10,000 acfm @ 248 °F</p> <p>Niro 50 baghouse dryer Uses boiler steam for drying 150 lb/hr maximum dry solids production Baghouse exhaust rate: 2,500 acfm @ 167 °F</p> <p>Niro 125 (Provon dryer) baghouse dryer Uses boiler steam for drying 600 lb/hr maximum dry solids production Baghouse exhaust rate: 6,500 acfm @ 167 °F</p> <p>Niro model SD-6.3-N "R &amp; D" electric baghouse dryer 20 lb/hr maximum dry solids production Baghouse exhaust rate: 415 acfm @ 167 °F</p> <p>Phoenix propane fired baghouse dryer 8 MMBtu/hr maximum heat input 2000 lb/hr maximum dry solids production Burner exhaust rate: 1,872 acfm @ 248 °F Baghouse exhaust rate: 16,000 acfm @ 167 °F</p>	None
5	<p><u>Conveyor baghouses</u></p> <p>Conveyor: Niro 125 line to bin 700 lb/hr maximum dry solids input Baghouse exhaust rate: 400 acfm @ 167 °F</p> <p>Conveyor: Phoenix line to bin 1200 lb/hr maximum dry solids input Baghouse exhaust rate: 400 acfm @ 167 °F</p>	None
5	<p><u>Conveyor baghouses (continued)</u></p> <p>Conveyor: Phoenix line to receiver 1200 lb/hr maximum solids input Baghouse exhaust rate: 800 acfm @ 167 °F</p> <p>Conveyor: Niro 50 line to receiver 250 lb/hr maximum solids input Baghouse exhaust rate: 800 acfm @ 167 °F</p>	None

**AIR QUALITY TIER II OPERATING PERMIT AND PERMIT TO CONSTRUCT NUMBER: T2-050413**

<b>Permittee:</b>	Glanbia Foods, Inc.	<b>Facility ID No. 063-00003</b>	<b>Date Revised/Modified:</b>	
<b>Location:</b>	Richfield, Idaho		<b>Date Issued/Renewed:</b>	Proposed Public Comment
			<b>Date Expires:</b>	

<b>Permit Section</b>	<b>Source Description</b>	<b>Emissions Controls</b>
	<p>Conveyor: Blau Knox line to D50 receiver  250 lb/hr maximum solids input  Baghouse exhaust rate: 500 acfm @ 167 °F</p> <p>Conveyor: Blau Knox line to D7 receiver  350 lb/hr maximum solids input  Baghouse exhaust rate: 800 acfm @ 167 °F</p>	

**AIR QUALITY TIER II OPERATING PERMIT AND PERMIT TO CONSTRUCT NUMBER: T2-050413**

<b>Permittee:</b>	Glanbia Foods, Inc.	<b>Facility ID No.</b> 063-00003	<b>Date Revised/Modified:</b>	
<b>Location:</b>	Richfield, Idaho		<b>Date Issued/Renewed:</b>	Proposed Public Comment
			<b>Date Expires:</b>	

## **2. FACILITY-WIDE CONDITIONS**

### ***Fugitive Emissions***

- 2.1 All reasonable precautions shall be taken to prevent PM from becoming airborne in accordance with IDAPA 58.01.01.650-651. In determining what is reasonable, considerations will be given to factors such as the proximity of dust-emitting operations to human habitations and/or activities and atmospheric conditions that might affect the movement of particulate matter. Some of the reasonable precautions include, but are not limited to, the following:
- Use, where practical, of water or chemicals for control of dust in the demolition of existing buildings or structures, construction operations, the grading of roads, or the clearing of lands.
  - Application, where practical, of asphalt, oil, water, or suitable chemicals to, or covering of, dirt roads, material stockpiles, and other surfaces which can create dust.
  - Installation and use, where practical, of hoods, fans, and fabric filters or equivalent systems to enclose and vent the handling of dusty materials. Adequate containment methods should be employed during sandblasting or other operations.
  - Covering, where practical, of open-bodied trucks transporting materials likely to give rise to airborne dusts.
  - Paving of roadways and their maintenance in a clean condition, where practical.
  - Prompt removal of earth or other stored material from streets, where practical.
- 2.2 The permittee shall monitor and maintain records of the frequency and the method(s) used (i.e., water, chemical dust suppressants, etc.) to reasonably control fugitive emissions.
- 2.3 The permittee shall maintain records of all fugitive dust complaints received. The permittee shall take appropriate corrective action as expeditiously as practicable after receipt of a valid complaint. The records shall include, at a minimum, the date that each complaint was received and a description of the following: the complaint, the permittee's assessment of the validity of the complaint, any corrective action taken, and the date the corrective action was taken.
- 2.4 The permittee shall conduct a quarterly facility-wide inspection of potential sources of fugitive emissions, during daylight hours and under normal operating conditions to ensure that the methods used to reasonably control fugitive emissions are effective. If fugitive emissions are not being reasonably controlled, the permittee shall take corrective action as expeditiously as practicable. The permittee shall maintain records of the results of each fugitive emissions inspection. The records shall include, at a minimum, the date of each inspection and a description of the following: the permittee's assessment of the conditions existing at the time fugitive emissions were present (If observed), any corrective action taken in response to the fugitive emissions, and the date the corrective action was taken.

### ***Odors***

- 2.5 The permittee shall not allow, suffer, cause, or permit the emission of odorous gases, liquids, or solids to the atmosphere in such quantities as to cause air pollution.

**AIR QUALITY TIER II OPERATING PERMIT AND PERMIT TO CONSTRUCT NUMBER: T2-050413**

<b>Permittee:</b>	Glanbia Foods, Inc.	<b>Facility ID No. 063-00003</b>	<b>Date Revised/Modified:</b>	
<b>Location:</b>	Richfield, Idaho		<b>Date Issued/Renewed:</b>	Proposed Public Comment
			<b>Date Expires:</b>	

- 2.6 The permittee shall maintain records of all odor complaints received. If the complaint has merit, the permittee shall take appropriate corrective action as expeditiously as practicable. The records shall include, at a minimum, the date that each complaint was received and a description of the following: the complaint, the permittee's assessment of the validity of the complaint, any corrective action taken, and the date the corrective action was taken.

### **Visible Emissions**

- 2.7 The permittee shall not discharge any air pollutant to the atmosphere from any point of emission for a period or periods aggregating more than three minutes in any 60-minute period which is greater than 20% opacity as determined by procedures contained in IDAPA 58.01.01.625. These provisions shall not apply when the presence of uncombined water, NO<sub>x</sub>, and/or chlorine gas is the only reason for the failure of the emission to comply with the requirements of this section.
- 2.8 The permittee shall conduct a quarterly facility-wide inspection of potential sources of visible emissions, during daylight hours and under normal operating conditions. The visible emissions inspection shall consist of a see/no see evaluation for each potential source. If any visible emissions are present from any point of emission, the permittee shall either take appropriate corrective action as expeditiously as practicable, or perform a Method 9 opacity test in accordance with the procedures outlined in IDAPA 58.01.01.625. A minimum of 30 observations shall be recorded when conducting the opacity test. If opacity is greater than 20% for a period or periods aggregating more than three minutes in any 60-minute period, the permittee shall take all necessary corrective action and report the exceedance in accordance with IDAPA 58.01.01.130-136. The permittee shall maintain records of the results of each visible emissions inspection and each opacity test when conducted. The records shall include, at a minimum, the date and results of each inspection and test and a description of the following: the permittee's assessment of the conditions existing at the time visible emissions are present (if observed), any corrective action taken in response to the visible emissions, and the date corrective action was taken.

### **Excess Emissions**

- 2.9 The permittee shall comply with the procedures and requirements of IDAPA 58.01.01.130-136 for excess emissions due to startup, shutdown, scheduled maintenance, safety measures, upsets and breakdowns.

### **Open Burning**

- 2.10 The permittee shall comply with the requirements of the *Rules for Control of Open Burning*, IDAPA 58.01.01.600-616.

### **Performance Testing**

- 2.11 If performance testing (air emissions source test) is required by this permit, the permittee shall provide notice of intent to test to DEQ at least 15 days prior to the scheduled test date or shorter time period as approved by DEQ. DEQ may, at its option, have an observer present at any emissions tests conducted on a source. DEQ requests that such testing not be performed on weekends or state holidays.



**AIR QUALITY TIER II OPERATING PERMIT AND PERMIT TO CONSTRUCT NUMBER: T2-050413**

<b>Permittee:</b>	Glanbia Foods, Inc.	<b>Facility ID No. 063-00003</b>	<b>Date Revised/Modified:</b>	
<b>Location:</b>	Richfield, Idaho		<b>Date Issued/Renewed:</b>	Proposed Public Comment
			<b>Date Expires:</b>	

All performance testing shall be conducted in accordance with the procedures in IDAPA 58.01.01.157. Without prior DEQ approval, any alternative testing is conducted solely at the permittee's risk. If the permittee fails to obtain prior written approval by DEQ for any testing deviations, DEQ may determine that the testing does not satisfy the testing requirements. Therefore, at least 30 days prior to conducting any performance test, the permittee is encouraged to submit a performance test protocol to DEQ for approval. The written protocol shall include a description of the test method(s) to be used, an explanation of any or unusual circumstances regarding the proposed test, and the proposed test schedule for conducting and reporting the test.

Within 30 days following the date in which a performance test required by this permit is concluded, the permittee shall submit to DEQ a performance test report. The written report shall include a description of the process, identification of the test method(s) used, equipment used, all process operating data collected during the test period, and test results, as well as raw test data and associated documentation, including any approved test protocol.

***Monitoring and Recordkeeping***

- 2.12 The permittee shall maintain sufficient records to ensure compliance with all of the terms and conditions of this operating permit. Records of monitoring information shall include, but not be limited to the following: (a) the date, place, and times of sampling or measurements; (b) the date analyses were performed; (c) the company or entity that performed the analyses; (d) the analytical techniques or methods used; (e) the results of such analyses; and (f) the operating conditions existing at the time of sampling or measurement. All monitoring records and support information shall be retained for a period of at least five years from the date of the monitoring sample, measurement, report, or application. Supporting information includes, but is not limited to, all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation and copies of all reports required by this permit. All records required to be maintained by this permit shall be made available in either hard copy or electronic format to DEQ representatives upon request.

***Reports and Certifications***

- 2.13 Any reporting required by this permit, including, but not limited to, records, monitoring data, supporting information, requests for confidential treatment, notifications of intent to test, testing reports, or compliance certifications, shall contain a certification by a responsible official. The certification shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document(s) are true, accurate, and complete. Any reporting required by this permit shall be submitted to the following address:

Air Quality Permit Compliance  
Twin Falls Regional Office  
Idaho Department of Environmental Quality  
601 Pole Line Road, Suite 2  
Twin Falls, ID 83301  
Phone: (208) 736-2190

Fax: (208) 736-2194

AIR QUALITY TIER II OPERATING PERMIT AND PERMIT TO CONSTRUCT NUMBER: T2-050413				
<b>Permittee:</b>	Glanbia Foods, Inc.	<b>Facility ID No.</b> 063-00003	<b>Date Revised/Modified:</b>	
<b>Location:</b>	Richfield, Idaho		<b>Date Issued/Renewed:</b>	Proposed Public Comment
			<b>Date Expires:</b>	

### ***Obligation to Comply***

- 2.14 Receiving a Facility-wide operating permit shall not relieve any owner or operator of the responsibility to comply with all applicable local, state, and federal rules and regulations.

### ***Fuel-burning Equipment***

- 2.15 The permittee shall not discharge to the atmosphere from any fuel-burning equipment PM in excess of 0.015 gr/dscf of effluent gas corrected to 3% oxygen by volume when burning gaseous fuel.

**AIR QUALITY TIER II OPERATING PERMIT AND PERMIT TO CONSTRUCT NUMBER: T2-050413**

<b>Permittee:</b>	Glanbia Foods, Inc.	<b>Facility ID No.</b> 063-00003	<b>Date Revised/Modified:</b>	
<b>Location:</b>	Richfield, Idaho		<b>Date Issued/Renewed:</b>	Proposed Public Comment
			<b>Date Expires:</b>	

**3. CLEAVER BROOKS AND KEWANEE BOILERS****3.1 Process Description**

Steam produced by the Cleaver Brooks and Kewanee boilers is used to dry whey in three whey dryers.

**3.2 Emission Control Description**

Emissions from the boilers are uncontrolled.

**Table 3.1 BOILER DESCRIPTIONS**

<b>Emissions Unit(s) / Process(es)</b>	<b>Emissions Control Device</b>	<b>Emissions Point</b>
Cleaver Brooks model CB-200-600-160 25.13 MMBtu/hr Fuel: propane	None	Cleaver Brooks boiler stack
Kewanee Classic III model H3S-600G02 25.13 MMBtu/hr Fuel: propane	None	Kewanee boiler stack

***Emissions Limits*****3.3 Emission Limits**

- Particulate emissions from each boiler stack shall not exceed 0.015 grains per dry standard cubic foot corrected to 3% oxygen when combusted gas.
- Annual NO<sub>x</sub> emissions from each boiler stack shall not exceed 23.11 tons per any consecutive 12-month period.

**3.4 Visible Emissions**

Visible emissions from each boiler stack shall comply with Permit Condition 2.7.

***Operating Requirements*****3.5 Fuel Usage**

The boilers shall burn propane exclusively.

**AIR QUALITY TIER II OPERATING PERMIT AND PERMIT TO CONSTRUCT NUMBER: T2-050413**

<b>Permittee:</b>	Glanbia Foods, Inc.	<b>Facility ID No.</b> 063-00003	<b>Date Revised/Modified:</b>	
<b>Location:</b>	Richfield, Idaho		<b>Date Issued/Renewed:</b>	Proposed Public Comment
			<b>Date Expires:</b>	

***Monitoring, Recordkeeping, and Reporting Requirements*****3.6 NSPS – Subpart Dc Applicability, Notification, Monitoring, Reporting and Recordkeeping Requirements**

In accordance with 40 CFR 60.48c(a), the permittee shall submit notification of the date of construction or reconstruction, anticipated startup, and actual startup as required by 40 CFR 60.7 for the boilers.

The notification shall include the following:

- the design heat input capacity of the affected facility,
- fuels to be combusted in the affected facility,
- the annual capacity factor at which the permittee anticipates operating the affected facility based on all fuels fired and based on each fuel fired.

The monitoring and recordkeeping of fuels combusted in the boilers shall comply with 40 CFR 60.48c(g):

- The owner or operator of each affected facility shall record and maintain records of the amounts of each fuel combusted during each day, unless alternative monitoring, recordkeeping, and reporting is formally approved by EPA.
- The permittee shall maintain written documentation of any EPA-approved monitoring, recordkeeping, and reporting requirements for the boilers.
- On September 13, 2005, the EPA granted the permittee's request to reduce fuel usage record-keeping requirements from daily to monthly, and also approved the use of one gas meter to record monthly propane usage for both boilers, following the specifications of the EPA determination.

**AIR QUALITY TIER II OPERATING PERMIT AND PERMIT TO CONSTRUCT NUMBER: T2-050413**

<b>Permittee:</b>	Glanbia Foods, Inc.	<b>Facility ID No. 063-00003</b>	<b>Date Revised/Modified:</b>	
<b>Location:</b>	Richfield, Idaho		<b>Date Issued/Renewed:</b>	Proposed Public Comment
			<b>Date Expires:</b>	

#### 4. WHEY DRYERS

##### 4.1 Process Description

Five whey dryers (hereafter referred to as “baghouse dryers”) use heated air to dry whey, and then capture the dried whey with baghouses. The Phoenix baghouse dryer, which combusts propane for a heat source, is the only baghouse dryer with its own combustion source.

##### 4.2 Emission Control Description

The baghouses on the baghouse dryers are process equipment. Their primary function is to capture product. In doing so, they also control particulate matter emissions. None of the baghouse dryers utilize air pollution control devices.

**Table 4.1 BAGHOUSE DRYER DESCRIPTIONS**

<b>Emissions Unit / Process</b>	<b>Emissions Control Device</b>	<b>Emissions Point</b>
<u>Baghouse dryers utilizing boiler steam</u>  Blau Knox baghouse dryer 300 lb/hr maximum dry solids production Baghouse exhaust rate: 10,000 acfm @ 248 °F  Niro 50 baghouse dryer 150 lb/hr maximum dry solids production Baghouse exhaust rate: 2,500 acfm @ 167 °F  Niro 125 baghouse dryer 600 lb/hr maximum dry solids production Baghouse exhaust rate: 6,500 acfm @ 167 °F	None	Baghouse dryer no.1 stack Height: 33 ft; diameter 1.58 ft  Baghouse dryer no. 2 stack Height: 37 ft; diameter 1.0 ft  Baghouse dryer no. 3 stack Height: 53 ft; diameter 1.67 ft
Niro “R & D” electric baghouse dryer 20 lb/hr maximum dry solids production Baghouse exhaust rate: 415 acfm @ 167 °F	None	Baghouse dryer no. 4 stack Height: 19 ft; diameter 0.33 ft
<u>Phoenix propane baghouse dryer:</u> <ul style="list-style-type: none"> <li>8 MMBtu/hr maximum heat input Burner exhaust rate: 1,872 acfm @ 248 °F</li> <li>2000 lb/hr maximum dry solids production Baghouse exhaust rate: 16,000 acfm @ 167 °F</li> </ul>	None	Dryer element no. 6 stack Height: 65 ft; diameter 1.67 ft  Baghouse dryer no. 5 stack Height: 66.5 ft; diameter 2.5 ft

#### ***Emissions Limits***

##### 4.3 Combustion Emissions – Phoenix Baghouse Dryer

Particulate emissions shall not exceed 0.015 grains per dry standard cubic foot corrected to 3% oxygen when combusting gas.

**AIR QUALITY TIER II OPERATING PERMIT AND PERMIT TO CONSTRUCT NUMBER: T2-050413**

<b>Permittee:</b>	Glanbia Foods, Inc.	<b>Facility ID No.</b> 063-00003	<b>Date Revised/Modified:</b>	
<b>Location:</b>	Richfield, Idaho		<b>Date Issued/Renewed:</b>	Proposed Public Comment
			<b>Date Expires:</b>	

**4.4 Visible Emissions**

Visible emissions from the baghouse dryer stacks shall comply with Permit Condition 2.7.

***Operating Requirements*****4.5 Operation and Maintenance Manual**

Within 60 days issuance of this permit, the permittee shall have developed an Operations and Maintenance (O&M) manual for the process baghouses, which describes the procedures that will be followed to comply with the manufacturer specifications for the baghouses. The O&M manual shall establish and shall provide for recordkeeping dates of routine maintenance along with operating parameter values. Operating parameter values may include, but are not limited to, acceptable pressure drop across the baghouses. This manual shall remain onsite at all times and shall be made available to DEQ representatives upon request.

**4.6 Process Baghouse Filter Bag Requirements**

The process baghouses shall be equipped with filter bags which have collection efficiency equal to or greater than 99.99% for PM<sub>10</sub>.

**4.7 Process Baghouse Pressure Drop Monitoring Device**

The permittee shall install, calibrate, maintain, and operate, according to manufacturer's recommendations and specifications, a pressure drop monitoring device to measure the pressure drop across the process baghouses.

**4.8 Process Baghouse Pressure Drop**

The process baghouses shall be operated according to manufacturer's recommendations and specifications and in accordance with Permit Condition 4.5 and General Provision 2.

**4.9 Phoenix Baghouse Dryer Fuel**

The Phoenix baghouse dryer burner shall burn propane fuel exclusively.

***Monitoring and Recordkeeping Requirements*****4.10 Monitoring Requirement**

The permittee shall monitor and record the pressure drop across each baghouse weekly, while operating, to demonstrate compliance with Permit Condition 4.8. These records shall remain on site for the most recent two year period and shall be made available to DEQ representatives upon request.

**AIR QUALITY TIER II OPERATING PERMIT AND PERMIT TO CONSTRUCT NUMBER: T2-050413**

<b>Permittee:</b>	Glanbia Foods, Inc.	<b>Facility ID No.</b> 063-00003	<b>Date Revised/Modified:</b>	
<b>Location:</b>	Richfield, Idaho		<b>Date Issued/Renewed:</b>	Proposed Public Comment
			<b>Date Expires:</b>	

## 5. CONVEYOR BAGHOUSES

### 5.1 Process Description

Dried whey is transported using pneumatic conveyors. Baghouses are used for product recovery on the conveyor lines.

### 5.2 Emission Control Description

The conveyor baghouses are process equipment. Their primary function is to capture product. In doing so, they also control particulate matter emissions.

**Table 5.1 CONVEYOR BAGHOUSE DESCRIPTIONS**

<b>Emissions Unit / Process</b>	<b>Emissions Control Device</b>	<b>Emissions Point</b>
Niro 125 line to bin 700 lb/hr maximum dry solids input Exhaust rate: 400 acfm @ 167 °F	None	Baghouse conveyor 10 stack Height 66.5 ft; diameter 0.5 ft
Phoenix line to bin 1200 lb/hr maximum dry solids input Exhaust rate: 400 acfm @ 167 °F		Baghouse conveyor 10 stack Height 66.5 ft; diameter 0.5 ft
Phoenix line to receiver 1200 lb/hr maximum dry solids input Exhaust rate: 800 acfm @ 167 °F		Baghouse conveyor 11 stack Height 65.5 ft; diameter 0.5 ft
Niro 50 line to receiver 250 lb/hr maximum dry solids input Exhaust rate: 800 acfm @ 167 °F		Baghouse conveyor 16 stack Height 14; diameter 0.5 ft
Blau Knox line to D50 receiver 250 lb/hr maximum dry solids input Exhaust rate: 500 acfm @ 167 °F		Baghouse conveyor 12 stack Height 63 ft; diameter 0.5 ft
Blau Knox line to D7 receiver 350 lb/hr maximum dry solids input Exhaust rate: 800 acfm @ 167 °F		Baghouse conveyor 13 stack Height 65 ft; diameter 0.66 ft

## ***Emissions Limits***

### 5.3 Visible Emissions

Visible emissions from the conveyor baghouse stacks shall comply with permit condition 2.7.

**AIR QUALITY TIER II OPERATING PERMIT AND PERMIT TO CONSTRUCT NUMBER: T2-050413**

<b>Permittee:</b>	Glanbia Foods, Inc.	<b>Facility ID No.</b> 063-00003	<b>Date Revised/Modified:</b>	
<b>Location:</b>	Richfield, Idaho		<b>Date Issued/Renewed:</b>	Proposed Public Comment
			<b>Date Expires:</b>	

***Operating Requirements*****5.4     Operation and Maintenance Manual**

Within 60 days issuance of this permit, the permittee shall have developed an Operations and Maintenance (O&M) manual for the process baghouses, which describes the procedures that will be followed to comply with the manufacturer specifications for the baghouses. The O&M manual shall establish and shall provide for recordkeeping dates of routine maintenance along with operating parameter values. Operating parameter values may include, but are not limited to, acceptable pressure drop across the baghouses. This manual shall remain onsite at all times and shall be made available to DEQ representatives upon request.

**5.5     Process Baghouse Filter Bag Requirements**

The baghouses shall be equipped with filter bags which have collection efficiency equal to or greater than 99.99% for PM<sub>10</sub>.

**5.6     Process Baghouse Pressure Drop Monitoring Device**

The permittee shall install, calibrate, maintain, and operate, according to manufacturer's recommendations and specification, a pressure drop monitoring device to measure the pressure drop across the process baghouses.

**5.7     Process Baghouse Pressure Drop**

Process baghouses shall be operated according to manufacturer's recommendations and specification and in accordance with Permit Condition 5.4 and General Provision 2.

***Monitoring and Recordkeeping Requirements*****5.8     Monitoring Requirement**

The permittee shall monitor and record the pressure drop across each baghouse weekly, to demonstrate compliance with Permit Condition 5.7. These records shall remain on site for the most recent two year period and shall be made available to DEQ representatives upon request.



**AIR QUALITY TIER II OPERATING PERMIT AND PERMIT TO CONSTRUCT NUMBER: T2-050413**

<b>Permittee:</b>	Glanbia Foods, Inc.	<b>Facility ID No.</b> 063-00003	<b>Date Revised/Modified:</b>	
<b>Location:</b>	Richfield, Idaho		<b>Date Issued/Renewed:</b>	Proposed Public Comment
			<b>Date Expires:</b>	

**6. SUMMARY OF EMISSION RATE LIMITS**

Table 6.1 provides a summary of all emission rate limits required by this permit.

**Table 6.1 SUMMARY OF EMISSION RATE LIMITS**

<b>Glanbia foods, Inc., Richfield Annual Emission Limits</b>	
<b>Source Description</b>	<b>NO<sub>x</sub> (T/yr)</b>
Kewanee boiler	23.11
Cleaver Brooks boiler	23.11

**AIR QUALITY TIER II OPERATING PERMIT AND PERMIT TO CONSTRUCT NUMBER: T2-050413**

<b>Permittee:</b>	Glanbia Foods, Inc.	<b>Facility ID No.</b> 063-00003	<b>Date Revised/Modified:</b>	
<b>Location:</b>	Richfield, Idaho		<b>Date Issued/Renewed:</b>	Proposed Public Comment
			<b>Date Expires:</b>	

**7. TIER II PERMIT GENERAL PROVISIONS**

1. The permittee has a continuing duty to comply with all terms and conditions of this permit. All emissions authorized herein shall be consistent with the terms and conditions of this permit. The emission of any pollutant in excess of the limitations specified herein, or noncompliance with any other condition or limitation contained in this permit, shall constitute a violation of this permit and the *Rules for the Control of Air Pollution in Idaho*, and the Environmental Protection and Health Act, Idaho Code 39-101 et seq.
2. The permittee shall at all times (except as provided in the *Rules for the Control of Air Pollution in Idaho*) maintain and operate in good working order all treatment or control facilities or systems installed or used to achieve compliance with the terms and conditions of this permit and other applicable laws for the control of air pollution.
3. The permittee shall allow the director, and/or his authorized representative(s), upon the presentation of credentials:
  - To enter upon the permittee's premises where an emissions source is located, or in which any records are required to be kept under the terms and conditions of this permit.
  - At reasonable times, to have access to and copy any records required to be kept under the terms and conditions of this permit, to inspect any monitoring methods required in this permit, and require stack compliance testing in conformance with IDAPA 58.01.01.157 when deemed appropriate by the Director.
4. Nothing in this permit is intended to relieve or exempt the permittee from compliance with any applicable federal, state, or local law or regulation, except as specifically provided herein.
5. This permit shall be renewable on the expiration date, provided the permittee submits any and all information necessary for the director to determine the amount and type of air pollutants emitted from the equipment for which this permit is granted. Failure to submit such information within 60 days after receipt of the Director's request shall cause the permit to become void.
6. The provisions of this permit are severable, and if any provision of this permit to any circumstance is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby.